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ABSTRACT

Social participation behavior of 33 2- and 3-year-old children was observed during free-play in order to identify differences between age groups as well as differences between contemporary outcomes and Parten's 1932 findings. Trained observers recorded the frequencies of play behaviors, utilizing a time sampling procedure and Parten's categories of social participation: unoccupied, onlooker, solitary, parallel, associative, and cooperative. Data were gathered on family size, birth order, and children's additional group experiences. Participating boys and girls were enrolled in four church-sponsored mother's-day-out or nursery school classes. Each child was observed at least 20 times for 1 minute by several observers. Findings indicate that 2-year-old and 3-year-old children engaged in solitary and parallel play more than half the time. The 3-year-old subjects engaged in significantly more associative and cooperative play than did 2-year-olds. Play behavior differed significantly by sex in both age groups. Parten's sample exhibited more social types of play than did the children in the present study. While 2-year-olds showed no pattern of choosing play partners by sex, 3-year-old girls tended to choose girls for cooperative play. Differences on some variables across observation rounds were evident, but no clear relationship between family and group factors and the six types of social participation was found. Implications for research and classroom practice are pointed out. Appendices consist of: letters to parents; observers' training and experience; a coding sheet; and the observation schedule. (RH)

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SOCIAL PARTICIPATION BY TWO-AND-THREE-YEAR-OLD

CHILDREN IN GROUPS

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(Thesis completed May, 1983 Graduate School

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Chapter I

The Problem

Since the mid-sixties researchers have increasingly focused on the characteristics, needs, and abilities of young children aged three to five and the importance of early experience for cognitive development (Biehler, 1976; Bloom, 1964). As the very youngest children have been provided for in day care, researchers have focused on the characteristics and needs of infants up to 24 months of age (Honig, 1972; Keister, 1970).

Currently researchers need to observe two-year-olds more closely in order to provide resources for those who work with this age group. The few existing studies of two-year-olds examine the children in a home setting or within a multi-age group. Nursery school teachers and caregivers need to know what range of behaviors to expect from two-year-olds in groups.

Parten's study in 1932 provided the classifications of play behavior still used today. In the last five years several studies have sought to replicate the original Parten work, test its continued validity, and add new knowledge to the classifications (Roper & Hinde, 1978; Bakeman &

Brownlee, 1980; Smith, 1978; and Rubin, Maioni & Hornung, 1976). These researchers all focused on multi-age groups or groups with ages averaging more than 36 months. Etaugh, Collins, and Staulcup (1979) studied two-year-olds but used a small sample heavily weighted with boys (ten boys and three girls). The lack of contemporary, precise information about two-year-old behavior, particularly in a group setting, suggests needed research concerns.

Purpose

The purpose of this study was to describe the behavior of two-year-olds in groups on the basis of social participation. It contrasted their behavior to that of three-year-olds today and to the behavior of two- and three-year-olds in the Parten (1932) study.

Design

The design of this study involved a partial replication of Parten (1932) and an attempt to enlarge upon Etaugh et al. (1979). It was a descriptive, observational study of two-year-olds and three-year-olds in their classrooms. The type of play in which they were engaged was observed and recorded using Parten's categories of play. The sample consisted of children in two groups: (1) age 24 to 30

months; and (2) age 36 to 42 months.

Assumptions

The basic assumptions associated with this study were: (1) the play behavior of two-year-olds may have changed over the years; and (2) the number of two-year-olds experiencing groups will not decline and may, in fact, increase.

Hypotheses

The null hypotheses established for this study were as follows:

1. There is no significant difference in the relative frequency of the various types of social play between two-year-olds and three-year-olds.
2. Within the two- and three-year-old groups, there is no significant difference in the relative frequency of the various types of social play by sex.
3. There is no significant difference in the relative frequency of types of social play of two- and three-year-olds in this sample and those of the same age children described by Parten.
4. There is no significant difference in the sex of the play partners chosen by two- and three-year-old children during associative and cooperative play.

5. There is no significant difference between the type of play engaged in by the children in the first round of observations and that in the second round.

6. There is no significant relationship between individual percentages of social participation and family size, extended family, or participation in other groups.

Definitions

The definitions used in categorizing the children's play followed those used by Parten (1932):

Unoccupied behavior--The child is not playing, but watching others play when something exciting is happening. Otherwise, she or he is standing around.

Onlooker--The child is not playing, but is watching with interest the other children who are playing. He or she may talk with the children being watched.

Solitary independent--The child is playing alone with different toys than others around. He or she is not talking to children nearby.

Parallel--The child plays independently with toys like those of the children near, but there is not an attempt to influence them or their play.

Associative--The child plays with other children. There is conversation and borrowing of toys. However, there

is not division of labor, organization or a recognized leader.

Cooperative--The child plays in a group that is organized for the purpose of making some material product, reaching a goal, dramatizing a situation or playing formal games.

Chapter II

Review of Literature

The literature pertaining to two-year-olds is generally limited in research and curriculum areas. Much of what does exist relates to two-year-olds at home or in a one-to-one relationship with an adult rather than in a group. General knowledge about the characteristics of this age child is based on the studies of Gesell and Ilg (1943) done almost 40 years ago. Recent studies of the play behavior and social competence of two-year-olds have been done by Adcock and Segal (1979a) (1979b), but they were home observations of individual children and interviews with mothers.

Some experimental studies into the play of two-year-olds have been reported (Table 1). Matas, Arend and Sroufe (1978) filmed two-year-olds playing with their mothers to discover the relationship of the child's attachment to the mother and the quality of the child's play. They found that children with stronger attachments to their mothers displayed more independence in problem-solving but readily asked for and accepted help when it was needed. Clark and Anderson (1979) did a study of spontaneous language repairs of two-year-olds in which they found that

Table 1

Experimental Studies Related to the Play of Two-Year-Olds

Researcher, Sample	Focus of Study	Method	Findings
Matas, Arend, Sroufe (1978) N=48 two-year-olds	Child attachment and quality of play	Assessed video taped mother child play	Children with stronger attachments to mothers displayed more indepen- dence in problem-solving but read- ily asked for and accepted help when needed.
Clark and Anderson (1979) N=3 two-to-three year olds	Spontaneous language repairs	Recordings of children's speech	Children seemed to have larger know- ledge of language than their produc- tive capacity and did make spontan- repairs.
Hrncir (1979) N=10 boys 10 girls	Ability of two-year olds to pretend with objects of low and high prototypicality.	Videotaped child played with ob- jects with an adult present.	1. Older children pretended more. 2. Children pretended more when the adult made suggestions.
Fein and Robertson (1975) N=22 boys and girls Aged 20 and 26 months	Variation of play with objects of high and low prototypical- ity, by age and sex.	Observed child playing with toys in home with mother present	1. More pretending by older chil- dren. 2. More play with high prototypical objects by older girls than by older boys. 3. More play in the last part of each session.

Researcher, Sample	Focus of Study	Method	Findings
Elder and Pederson (1978) N=72 2½ - 3½ year-olds	How children use one object for another and pretend to use an object not present	Individual children asked to pretend that similar, dissimilar, and no object was that object.	1. 3½ year-olds able to do all that asked. 2. 3 year-olds less able. 3. 2½ year-olds could pretend better with no object than with dissimilar one.
Golomb (1977) N=60 2.8 - 5.8 year-olds	To study children's playful object substitutions or symbolic transformation	Individual children were asked to substitute missing pieces from puzzles for an object.	1. First choice was most appropriate. 2. Chose more appropriate pieces or objects before choosing incongruous ones. 3. Younger children chose more incongruous things.
Lowe (1975) N=244 children 12-26 months-old	Establishment of developmental trends in meaningful use of miniature objects during age period crucial in language	Observation of individual children's spontaneous nonverbal behavior in a structured play situation.	1. Younger children's activities centered on own body. 2. Progressively gave way to doll-oriented activities about 21 months.
Fenson and Kagan (1976) N=20 children 7-20 months-old	Trace emergence of ability to relate objects in play to examine the beginnings of early symbolic play.	Individual children were observed while playing with tea set.	1. Relational play arose in last part of first year--along with object permanence. 2. Symbolic play emerging between 13 and 20 months--with speech development.

Researcher, Sample	Focus of Study	Method	Findings
Ungerer, Zelazo, Kearsley, Kurowski (1979) N=124 9.5-34 month-olds	Qualitative and quantitative changes in play which can serve as markers for judging developmental progress.	Individual chil- dren played with specific toys in unstructured play setting.	1. Functional play at 13.5 months. 2. Symbolic play emerged between 18 and 22 months--increased to 36 months.

the children seemed to have a larger knowledge of the language than their productive capacity and did make spontaneous repairs. Hrncir (1979) and Fein and Robertson (1973) studied two-year-olds' abilities to pretend with objects of low and high prototypicality. Both research designs involved a single child and an adult. Hrncir videotaped the interaction in an experimental setting; Fein and Robertson had two researchers work with single children in their homes with their mothers present. Their findings indicated more pretending with objects by the older children in their samples. Elder and Pederson (1978), Golomb (1977), Lowe (1975), Fenson and Kagan (1976) and Ungerer, Zelazo, Kearsley, and Kurowski (1979) each explored the pretending or symbolic play of a broad age range of preschool children which included two-year-olds. All of these studied the children individually in an experimental setting, usually in the presence of an adult. Their findings indicate that the ability to pretend that one object is something else arises around 21 months of age along with the development of language and continues to develop through the preschool years.

Some programs have been written for use with two-year-olds, but even these are designed for one child and one adult and would be difficult to adapt to group use. Ligon

(1980) has written a program for two-year-olds in a family day home setting, but she describes how the caregiver can work with one child at a time. Gordon (1972) also designed activities for two-year-olds, but the setting is for mother-child or caregiver-child.

Huston-Stein, Friedrich-Cofer, and Susman (1977) evaluated teaching styles in Headstart programs by studying the play behavior of the children. Their sample includes some two-year-olds, but the data are analyzed in such a way that characteristics of two-year-olds in groups cannot be defined.

Etaugh, Collins, and Gerson (1975) studied two-year-olds in a nursery school setting and looked for sex differences in play preferences. They found that boys spent more time in opposite sex-behaviors and that peer pressure to engage in masculine activities was not a factor at this age.

Feine (1973) evaluated the evidence of learning by two-year-olds in group settings. He concluded that more learning goes on if most of the children's interactions are with an adult rather than with another child. He contended that two-year-olds cannot really play together and should not be expected to do so.

In 1932 Mildred Parten did a study of one-to-four-

year-old children's social participation which has become a classic (Table 2). In the course of the study she developed six categories of play that are used today to describe children's social participation. Those categories include unoccupied, onlooker, solitary, parallel, associative, and cooperative play. She found that, although children of any age might engage in any of the six categories of play, there seemed to be a hierarchy of play. The youngest children in her sample spent more time in solitary and parallel play while the older children spent more time in associative and cooperative play.

Barnes (1971), Bakeman and Brownlee (1980), Roper and Hinde (1978), and Rubin, Maioni, and Hornung (1976) have done replications of Parten's study that did not include two-year-olds (Table 2). Barnes (1971) attempted to follow Parten's study very closely. His findings showed more parallel play and less cooperative play than Parten found. His sample, however, was from a rural Canadian community while Parten's children were from an urban one where they may have had more experience in group settings. Bakeman and Brownlee (1980) studied parallel play in children 32 to 48 months old. They concluded that parallel play was a brief interlude as children moved into cooperative play rather than an age-related stage. Roper and Hinde (1978)

Table 2

Parten's Social Participation and Related Research

Researcher, Title Date, Sample	Focus of Study	Method	Findings
Parten, 1932 Social Participation Among Preschool Children N=42 children 1-4 years old	What types of social participation would be seen	Observations of children in class from 10-26 to 6-27 during free play. Made preliminary observations and then developed scale of social participa- tion. <u>Unoccupied</u> --doesn't play isn't interested <u>Onlooker</u> --watches interestedly <u>Solitary</u> --plays alone although near <u>Parallel</u> --plays near and with like toys <u>Associative</u> --no leader, no organi- zation <u>Cooperative</u> --leader, assigns roles Observed for 1 minute at a time.	1. Types of play: a. Parallel play was most fre- quent type of play. b. Onlooker was not very common. c. Unsocial types of play-u, s, o made up 25% of observations. d. Correlations inferred that children who engaged in paral- lel activity are not usually the same ones who engage in more socialized activities. 2. Age and Social Participation: a. The older the child, the more he/she plays in more highly integrated group. b. Only the youngest children 1-3 were found unoccupied. c. Solitary play was most common at 2½, declined at 3 and and at 4. d. Onlookers most prevalent at 2½ and 3. e. Parallel play most at 2½, least at 3-4. f. Associate play increased as children became older--most in oldest. g. Organized group play begins increase at 3. 4. Length of time in nursery school not a factor.

Researcher, Title Date, Sample	Focus of Study	Method	Findings
Barnes, K.E., 1971 Preschool Play Norms A Replication N=42 children 3-5 years old	To compare play behavior of contemporary children to that of those studied by Parten.	Using Parten's six categories, children were observed at random for 5 minutes in second half of 1 hour during free play time.	1. Children in 1969 were less socially oriented. (More parallel play less cooperating) 2. Barnes' children were from small community, Parten's from urban. 3. Barnes' preschoolers were Canadians, Parten's were Americans.
Roper, R. and Hinde, R. S., 1978 Social Behavior in a Play Group: Consistency and Complexity N=67 children 3-5 years old	The nature of differences in social behavior shown by the children.	Observed children during free play outside in nursery school. Each child observed for 5 seconds at a time. Each child once every 5 min., eleven times each morning. Staff also observed. Used Parten categories as well as other more specific terms for behavior.	1. Social participation and selfplay are not mutually exclusive. Child who plays alone may not be lacking in social ability. 2. 3rd dimension-how much children not playing at all. 3. Dimension of "social participation" is misleading, distorts individual differences.
Bakeman, R. and Brownlee, J. R., 1980 The Strategic Use of Parallel Play: A Sequential	Study the nature of parallel play.	Longitudinal Study. Day Camp setting in 3 week term. Videotaped daily for 7 consecutive minutes	1. Amount of parallel play similar to other studies. 2. Observed least amount of group play and most unoccupied perhaps because of young age and disadvantaged background.

Researcher, Title Date, Sample	Focus of Study	Method	Findings
Analysis, 1980 N=18 boys 23 girls 32-48 months old		during indoor free play Used: Parten categories.	3. Sequence of play states--children tended to go from parallel to together or group. Unoccupied tended to change to solitary or together. From solitary switched with equal probability into all four play states.
Etaugh, C., Collins G. Staulcup, V. H., 1979 Social Participation in 2 year-old children N=10 boys 3 girls Mean age of 23.8 months	To re-examine play behavior of 2 year-- olds using Parten's scale of social participation.	Observations twice a week during free play. Observed for 15 seconds and category of social participation recorded.	1. Boys showed more associative play than girls. 2. Unoccupied behavior decreased over semesters. 3. Parallel play increased. 4. Comparing data to Parten found more S's in U, S, O behavior and less in P, A and C. 5. Number of siblings correlated positively with time in parallel play.
Smith, P. R., 1978 A Longitudinal Study of Social Participa- tion in Preschool Children: Solitary and Parallel Play Reexamined. N=48 children 28-47 months old	To provide longi- tudinal data on parallel and soli- tary play.	Observed by 1 observer for 9 months in class- room setting. Social Behavior Measures used: 1. Group=Parten's Associative 2. Parallel=Parten	1. Adult category not useful. 2. Parallel behavior is found throughout the preschool period in 2-5 year old children. Decreases with age, but not very substantially. Is predominant behavior in 2's or 3's. Older 3's and 4's tend to skip parallel

Researcher, Title Date, Sample	Focus of Study	Method	Findings
		S, O, U 3. Solitary=Par- ten S, O, U	play. 3. Solitary behavior decreases with age. 4. Questions social participation index in which parallel is weighted intermediately between solitary and group.
Rubin, K., Maioni, J., Hornung, M., 1976 Free Play Behavior in Middle and Lower Class Preschoolers: Parten and Piaget Revisited N=23 boys 17 girls Mean age of 38.7 mos.	1. Designed to discover the relationship between the 2 play hier- archies. Social (Parten) and Cog- nitive (Piaget) 2. To discover whether dif- ferences existed between free play behaviors of middle and lower-class preschoolers.	Each child observ- ed for 1 minute on 30 consecutive school days by 2 observers. Behavior classified on checklist for cognitive and social play. Used Parten's and Smilanski's categories.	1. Main effects were found for so- cial class for functional play. Middle-class children displayed more constructive, associative and cooperative play than lower- class peers. Lower-class pre- schoolers displayed more par- allel and functional play than middle-class. 2. Females were more constructively and less dramatically inclined. 3. Found pattern of frequency of play-less cooperative more solitary, more associative, most parallel. 4. Middle-class more parallel and associative. 5. Frequency of games significantly lower than cognitive play. Lower dramatic play than functional and constructive.

studied three-to-five-year-old children in a nursery school setting. Their findings indicated that the child who played alone might not be lacking in social ability but just chooses to play alone. Rubin, Maioni and Hornung (1976) compared the relationship between Parten's social participation and Piaget's cognitive play using Smilanski's categories. They found the middle-class children in their sample displayed higher levels of both social and cognitive play than did the lower-class children in their sample.

Etaugh, Collins, and Staulcup (1979) did study the social participation of two-year-olds using Parten's categories of play. Their sample, however, included ten boys but only three girls. They found boys engaging in more unoccupied, solitary, and onlooker play and less parallel play than Parten did in two-year-olds.

The literature reflects the need for more knowledge of two-year-olds in groups. This need is expressed by Rogers and Wolfe (1980, p. 100). "The age period spanning from 18 months to 36 months has been a neglected area of focus in literature for caregivers of children. Yet, an increase in the number of such children who participate in group care makes it imperative that caregivers be aware of behavior patterns and developmental needs which are characteristic of this age period. The lack of focus on

the 18-36 month-old has resulted in the lack of well-organized developmental curricula for this age."

Summary

During the seventies, researchers have studied two-year-olds in relationship to play behavior at home, attachment and the quality of play, language development, and the development of the ability to pretend. Most studies in other areas have used multiaged samples and have analyzed data in such a way that no clear picture of the behavior of two-year-olds as a group emerges. The Parten study remains the basis for observation of play behaviors. The need for a reassessment of play behavior of two-year-olds in group settings led to this study of two-year-olds contrasted to their cohorts who were three-year-olds and to the two-year-olds in the Parten sample.

Chapter III

Methodology

Social participation behavior of 33 two- and three-year-old children was observed during a time of free play in group settings in the spring of 1982. Eleven trained observers recorded the frequencies of various types of play behavior utilizing the Parten categories of social participation.

Sample

Four classes from church-sponsored mothers'-day-out or nursery school programs in middle class suburbs of the north Texas metroplex were identified as a source of subjects. The families of the children in these programs reflect the nuclear family concept of employed father, mother at home, and two children.

Criteria for selection of subjects included: (1) that they be 24 to 30 or 36 to 42 months of age and (2) that they be enrolled in a nursery school or mothers'-day-out program for children of the same age. Two of the classes selected enrolled the younger age group and two enrolled the older age group.

A total of 40 children including 21 two-year-olds and 19 three-year-olds enrolled in four classes comprised

the sample. Of the 40 children, seven were not included in the analysis because of absence on observation days. The total number of children completing the study was 33. The 16 two-year-olds included seven girls and nine boys. They had a mean age of 27.7 months with a range of 25 to 30 months. The 17 three-year-olds consisted of nine boys and eight girls. They had a mean age of 40.5 months with a range of 38 to 42 months (Table 3).

Hypotheses

The null hypotheses established for this study were as follows:

1. There is no significant difference in the relative frequency of the various types of social play between two-year-olds and three-year-olds.
2. Within the two- and three-year-old groups, there is no significant difference in the relative frequency of the various types of social play by sex.
3. There is no significant difference in the relative frequency of types of social play of two- and three-year olds in this sample and those of the same age children described by Parten.
4. There is no significant difference in the sex of the play partners chosen by two- and three-year-old children

Table 3
Characteristics of the Sample

		Two-Year-Olds	Three-Year-Olds	Total
		N=16	N=17	33
Sex				
	Boys	9	9	18
	Girls	7	8	15
Age	Mean	27.7 months	40.5 months	
	Range	25-30 months	38-42 months	
Siblings				
	None	5	4	9
	One	8	8	16
	Two	3	4	7
	Three	0	1	1
Birth Order				
	First	5	5	10
	Second	8	8	16
	Third	3	3	6
	Fourth	0	1	1
Availability of Extended Family				
	no	8	10	18
	yes	8	7	15
Participation in Additional Groups				
	0	2	1	3
	1	7	9	16
	2	6	7	13
	3	1	0	1

during associative and cooperative play.

5. There is no significant difference between the type of play engaged in by the children in the first round of observations and that in the second round.

6. There is no significant relationship between individual percentages of social participation and family size, extended family, or participation in other groups.

Instrument

The instrument used to record the children's behavior was the Parten (1932) scale of categories of social participation encompassing six types of play behavior: unoccupied, onlooker, solitary, parallel, associative, and cooperative. These categories were used in a time sampling observation to record the children's behavior. Family size and birth order, and other group experiences were also documented.

Study Procedures

1. Upon approval of the prospectus, the proposal was submitted to the Human Subjects Research Committee as exempt under the category of routine educational procedures.

2. Classes of young children were identified for possible participation. In the early spring of 1982 the

researcher located two classes in a mothers'-day-out program within a church setting in which the children were 24 to 30 months old by March 1. In the same setting, the researcher located a class in which the children were 36 to 42 months old. An additional class of children aged 36 to 42 months was located in the nursery school program at another suburban church.

3. Permission to include these classes in this study was obtained from the directors and the teachers involved.

4. The directors of the two programs participating in the study sent letters to parents explaining the project and asking permission to observe their children (Appendices A and B).

5. Background information was collected from parents and directors. Birth order, siblings, extended family, and group participation were documented (Table 3).

6. Observers were selected, trained, and scheduled for observation. Observations were completed between March 9, 1982 and April 15, 1982. These processes are delineated under Observation Procedures (page 22).

7. All data were coded for analysis and entered in the Texas Woman's University DEC 20 computer.

8. Data were analyzed using relative frequencies, Spearman Correlations, the Mann-Whitney U and the one-

sample t test. An alpha level of .05 was established.

9. Findings were summarized and conclusions developed.
10. Centers were informed of the study outcomes.

Observation Procedures

Selecting Observers

The study utilized three observers in each class to collect the needed data. The researcher served as an observer in the two classes of two-year-olds and as a substitute in the two three-year-old classes. In order to provide three observers for each of the four classes, the researcher recruited separate teams of observers for each class. All eleven observers had training and/or experience in working with young children in group settings (Appendix C).

Training Observers

The observers were trained by a process of coming to agreement with the researcher utilizing a videotape of a free play experience as the stimulus. The eleven observers were provided with Parten's (1932) definitions of categories of play. Group training sessions were held in which the project was explained, the equipment introduced, and the observers practiced identifying the six types

of social participation.

The researcher designed the coding sheet to fit a small clip board and introduced these in training the observers (Appendix D). Cassette players and cassettes emitting a five-second tone every sixty seconds were introduced, and their use as an auditory signal was demonstrated.

A videotape of the free play of young children was studied to practice identification of types of social participation, and was then used for trial rounds of observations and discussion until all observers had successfully identified all six categories of play behavior at least two times. Use of the videotape was chosen over trial observations so that more observers could be trained at one time, and that a uniform set of stimuli could be utilized. The videotape could also be stopped or moved to allow questions and discussion of specific types of play behavior.

Observation Planning

Each day the observers were provided with a clip board containing two coding sheets with the children's names in random order, a cassette player and a cassette with the auditory signal, and a small earphone. Random order was established by a computer program designed to select

from the various samples. The auditory signal was designed to provide standardization and pacing of observation time. In two classes observers took a fifteen minute break between rounds of observations. In the other two classes, the classroom schedule did not allow time for a break. The one minute space between observations, however, allowed a rather leisurely pace that observers found relaxing.

Observation Schedule

On March 9, 1982 the observations began. Because of the class schedules the observations were not complete until April 15, 1982 (Appendix E). Of the 40 children in the sample, 33 were present during enough observation sessions to provide at least 20 observations, the minimum number needed for reliability as established by Parten (1932). When most of the children had arrived each day, the observers would begin a one minute observation of each child followed by a one minute period for coding his or her behavior and for locating the next child on the list until all children were observed. Two rounds of observation of the class were done in this manner. Thus, each child was observed two times by each of three observers and six samples of play behavior for each child were coded each day.

Analysis

A total of 879 observations were analyzed in exploring the hypotheses with the number of observations on individual children ranging from 20 to 42. The mean number of observations totaled 26.6. The frequencies and relative frequencies of all six types of social participation were computed for the whole sample, by age, by observation round, for sex of playmates in associative and cooperative play, for the choice of engaging the teacher in associative or cooperative play, sibling, birth order, number of other groups participated in, and availability of extended family.

Utilizing an alpha level of .05, the following statistics were used to determine significance. The Spearman Correlation was utilized to examine relationships between each type of play behavior and any other play behavior or factors such as age, sex, family and additional group participation. The Mann-Whitney U test was used to determine significant differences in the relative frequency of types of play by sex, by age, and by observation round. The one-sample t test was used to determine significant differences between the findings of this study and those of Parten (1932). All statistics except the one-sample t test were computed on the DEC 20 Texas Woman's University computer utilizing the SPSS program.

Summary

Thirty-three children enrolled in church-sponsored group care were observed during free play in relationship to their levels of social participation as developed by Parten (1932). Two-year-olds ranged in age from 25 to 30 months on the first day of observation with the mean being 27.7 months. Three-year-olds range in age from 38 to 42 months on the first day of observation with a mean age of 40.5 months. A videotape of free play was utilized in training eleven observers to identify the six types of play. They observed randomly ordered subjects in one of the four classrooms. Each child was observed at least 20 times for one minute by several observers. Frequency of observations ranged from 20 to 42, with a mean of 26.6. The total number of observations used in the analyses of data was 879.

Six hypotheses were established to explore (1) age differences (2) play patterns by sex (3) comparisons to Parten (1932) (4) choice of playmate by sex (5) differences by rounds and (6) possible family or group participation factors. The data were analyzed using relative frequencies, Spearman Correlations, the Mann-Whitney U and the one-sample t test, and an alpha level of .05 was established.

Chapter IV

Analyses of Data

The purpose of this study was to describe the characteristics of the play behavior of two-year-olds as compared to that of three-year-old cohorts and to contrast those findings to those of Parten (1932). Thirty-three children from four classes were observed by eleven observers.

The null hypotheses were:

1. There is no significant difference in the relative frequency of the various types of social play between two-year-olds and three-year-olds.
2. Within the two- and three-year-old groups, there is no significant difference in the relative frequency of the various types of social play by sex.
3. There is no significant difference in the relative frequency of types of social play of two- and three-year olds in this sample and those of the same age children described by Parten (1932).
4. There is no significant difference in the sex of the play partners chosen by two- and three-year-old children during associative and cooperative play.
5. There is no significant difference between the

type of play engaged in by the children in the first round of observations and that in the second round.

6. There is no significant relationship between individual percentages of social participation and family size, extended family, or participation in other groups.

Findings

Differences Between Age Groups

To assess differences in social play between two- and three-year-olds, the mean percentages of each type of social participation were contrasted (Table 4). The social participation of two-year-olds as a group was most frequent in the categories of solitary and parallel play with the means of these two categories totaling 63.8 percent.

Three-year-olds exhibited a somewhat different pattern of social participation. Solitary and parallel play continued to have the highest relative frequencies with a combined percentage of 58 percent, but differences in the categories of associative and cooperative play were significantly higher for the three-year-olds than for the two-year-olds ($p .05$). These two types of play require more language and social skills.

Patterns of play types were reflected in the Spearman

Table 4
Mean Percentages of Each Type
of Social Participation by Age Group

	Two-Year-Olds	Three-Year-Olds
Unoccupied	6.5	2.4
Onlooker	18.5	14.4
Solitary	30.5	32.0
Parallel	33.3	26.1
Associative	10.6*	20.2*
Cooperative	.6*	4.9*

*Significant at .05 level.

correlations. Those that occurred together at a significant level in this sample of two-year-olds included unoccupied and onlooker behaviors, solitary and parallel, and associative and cooperative play. For the three-year-olds, certain play types were identified significantly as not occurring together. Parallel play tended not to occur with unoccupied, solitary or cooperative play. Onlooker tended not to occur with associative play.

The null hypothesis of no significant difference in the relative frequency of types of social play between two- and three-year-olds is rejected.

Sex Differences within Age Groups

To test the second hypothesis, the mean percentages of each type of social participation for boys and girls were compared within the age groups. These differences are depicted in Table 5.

In general, the two-year-old boys engaged in more unoccupied, solitary, and parallel play than did the girls. The girls engaged in more onlooker, associative and cooperative play than did the boys. The percentage of cooperative play for girls was significantly higher at the .05 level of significance.

The three-year-old boys engaged in significantly more

Table 5
Mean Percentages of
Types of Social Participation
for Girls and Boys Within Each Age Group

	Two-Year-Olds		Three-Year-Olds	
	Girls	Boys	Girls	Boys
Unoccupied	4.86	7.79	2.94	1.90
Onlooker	25.29	13.16	18.13	10.98
Solitary	24.62	35.15	33.38	30.83
Parallel	28.95	36.68	17.94*	33.37*
Associative	14.86	7.20	20.05	20.36
Cooperative	1.4*	0.00*	7.53*	2.52*

*Significant at .05 level.

parallel play than did the girls (0.05). The three-year-old girls engaged in significantly more cooperative play than did the boys. The null hypothesis of no difference in the types of play by sex is rejected.

Comparisons to Parten's Sample

Mildred Parten's study (1932) has become a classic study in child development. Parten (1932) and her students at the Institute of Child Welfare at the University of Minnesota observed children in their program's laboratory nursery school. Forty-two children were observed during free play in a multi-age class setting from October 1926 to June 1927. Her sample included 14 two-year-olds and 14 three-year-olds.

From the observations done by Parten (1932) and her students from October through January, the six categories of social participation were developed. These categories were then used to classify the behavior observed from February through June.

The third hypothesis stated that there is no significant difference in the relative frequency of types of social play of the two and three-year-olds in this sample and those of the same age children described by Parten (1932). To examine this relationship, the percentages of observations

of social participation for each child were collected to give an individual profile. These profiles could then be compared to similar profiles from Parten's (1932) sample. The respective percentage frequencies of the two- and three-year-old children from both studies appear as Tables 6 and 7.

The mean percentages for each type of social participation for the two-year-olds in this study were also compared to those of the two-year-olds in Parten's (1932) study (Table 8). This comparison revealed significantly more unoccupied, onlooker, and solitary play on the part of the two-year-old children in this study, while the two-year-olds in Parten's (1932) study engaged in significantly more associative and cooperative play than did the children in this study. The amount of parallel play was not significantly different.

The mean percentage for each type of social participation for the three-year-olds in this study was compared to that of the three-year-olds in Parten's (1932) study (Table 8). The three-year-olds in the present study engaged in significantly more onlooker and solitary play than did those in Parten's (1932) study. Parten's (1932) three-year-olds engaged in significantly more cooperative play than did the children in this study. There were no

Table 6
Percentages of Play Types Observed for Individual Subjects

Parten's Study (1932)

Child	Total Obs	Percent U	Percent O	Percent S	Percent P	Percent A	Percent C
Three-Year-Olds							
N3	79	0	1.2	1.2	8.0	33.0	57.0
M3	100	0	5.0	18.0	51.0	18.0	8.0
L3	76	0	11.0	12.0	22.0	33.0	22.0
K3	76	0	12.0	25.0	25.0	33.0	5.2
J3	77	0	9.0	15.0	33.0	21.0	22.0
I3	82	0	3.4	6.2	15.0	37.0	39.0
H3	70	0	4.1	11.0	25.0	30.0	30.0
G3	75	0	5.2	22.0	33.0	23.0	17.0
F3	71	0	4.1	4.1	26.0	45.0	20.0
E3	89	0	7.0	33.0	43.0	15.0	2.4
D3	82	0	7.0	20.0	33.0	20.0	20.0
C3	80	0	6.2	3.4	34.0	21.0	36.0
B3	89	0	2.0	8.0	32.0	28.0	30.0
A3	92	0	2.4	10.0	33.0	35.0	20.0
Two-Year-Olds							
N2	87	0	3.4	30.0	32.0	20.0	15.0
M2	78	0	12.0	17.0	9.9	37.0	25.0
L2	85	0	11.0	17.0	54.0	11.0	8.0
K2	90	11	38.0	23.0	20.0	7.0	1.0
J2	73	0	5.5	20.0	50.0	20.0	5.5
I2	78	12.0	10.0	33.0	44.0	0.0	1.4
H2	73	0	12.0	33.0	34.0	20.0	1.3
G2	88	3.4	11.0	26.0	39.0	17.0	4.1
F2	74	0	15.0	12.0	33.0	33.0	6.0
E2	64	0	11.0	25.0	40.0	12.0	12.0
D2	64	0	4.6	25.0	50.0	20.0	1.0
C2	86	3.0	8.0	35.0	20.0	26.0	7.0
B2	77	0	1.2	21.0	42.0	40.0	6.2
A2	19	0	20.0	5.2	35.0	35.0	5.2

Table 7
 Percentages of Play Types for Individual Subjects
 Marshall Study (1982)

Child	Total Obs	Percent U	Percent O	Percent S	Percent P	Percent A	Percent C
Three-Year-Olds							
Q3	20	3.33	0.00	36.67	16.67	36.67	6.67
P3	24	0.00	9.09	9.09	59.09	22.73	0.00
O3	30	0.00	10.00	23.33	40.00	23.33	3.33
N3	30	6.67	6.67	40.00	20.00	23.33	3.33
M3	30	3.33	6.67	43.33	26.67	20.00	0.00
L3	24	0.00	20.83	33.33	20.83	25.00	0.00
K3	30	0.00	0.00	33.33	43.33	23.33	0.00
J3	29	3.45	3.45	34.48	13.79	41.38	3.45
I3	30	3.33	6.67	33.33	33.33	23.33	0.00
H3	30	0.00	31.03	20.69	31.03	13.79	3.45
G3	20	0.00	30.00	30.00	20.00	10.00	10.00
F3	26	7.69	23.08	38.46	11.54	11.54	7.69
E3	22	0.00	13.64	18.18	31.82	31.82	4.55
D3	26	0.00	23.08	46.15	11.54	3.85	15.38
C3	22	9.09	13.64	27.27	18.18	18.18	13.64
B3	26	3.85	38.46	38.46	15.38	3.85	0.00
A3	26	0.00	7.41	37.04	33.33	11.11	11.11
Two-Year-Olds							
P2	28	0.00	3.57	32.14	57.14	7.14	0.00
O2	24	0.00	17.39	39.13	43.48	0.00	0.00
N2	30	0.00	10.00	13.33	46.67	26.67	3.33
M2	24	0.00	21.74	34.78	39.13	4.35	0.00
L2	30	6.67	80.00	13.33	0.00	0.00	0.00
K2	30	0.00	6.67	36.67	36.67	20.00	0.00
J2	30	0.00	3.33	26.67	56.67	13.33	0.00
I2	20	9.52	14.29	47.62	23.81	4.76	0.00
H2	42	2.38	11.90	28.57	26.19	28.57	2.38
G2	24	4.17	8.33	50.00	37.50	0.00	0.00
F2	22	27.27	18.18	36.36	13.64	4.55	0.00
E2	24	13.04	21.74	26.09	30.43	8.70	0.00
D2	24	16.67	25.00	12.50	37.50	8.33	0.00
C2	24	0.00	0.00	45.83	50.00	4.17	0.00
B2	24	16.67	29.17	29.17	16.67	8.33	0.00
A2	24	8.33	25.00	16.67	12.50	33.33	4.17

Table 8
Marshall and Parten Comparisons of Relative
Frequencies of Social Participation of Two and Three-Year-Olds

Types of Social Participation	Two-Year Olds			Three-Year-Olds		
	Marshall N=16	Parten N=14	One Sample <u>t</u>	Marshall N=17	Parten N=14	One Sample <u>t</u>
Unoccupied	6.51	2.10	2.16*	2.39	2.0	.535
Onlooker	18.47	9.19	2.87*	14.35	4.80	3.44*
Solitary	30.54	17.65	30.45*	32.03	13.40	7.94*
Parallel	33.30	30.20	.74	26.11	20.60	1.766
Associative	10.50	17.00	2.13 ^y	20.21	21.70	.584
Cooperative	.618	6.97	18.58*	4.88	16.9	9.66*

*Significant t score at .05 level.

significant differences between the two groups in the percentages of unoccupied, parallel, and associative play. The null hypothesis of no difference in types of play in the present sample and in Parten's (1932) sample is rejected at the .05 level.

Choice of Play Partners by Sex

The sex of the playmates of children engaging in associative and cooperative play was recorded during the observations. These data were analyzed using the Mann-Whitney U Test.

The results indicated that for these two-year-olds no significant pattern of choosing same sex or opposite-sex playmates existed (Table 9). Among three-year-olds, girls significantly chose girls as playmates and boys significantly chose boys during associative play. The frequency of cooperative play among boys was limited and no significant differences by sex were documented. The null hypothesis is not rejected as applied to the two-year-olds but rejected as applied to the three-year-olds.

Play Variations by Observation Round

The fifth hypothesis stated that there is no significant difference between the type of play engaged in by

Table 9
Same Sex or Opposite Sex
Playmates in Associative and Cooperative Play

	Two-Year-Olds				Three-Year-Olds			
	Male Playmate		Female Playmate		Male Playmate		Female Playmate	
	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male
Asso- ciative Play	22.61	24.07	48.21	29.62	32.10*	85.71*	82.95*	26.82*
Co- operative Play	14.28	0.00	14.28	0.00	55.20	33.33	62.50*	11.11*

* Significant at .05 level.

the children in the first round of observations and that in the second round. To examine this relationship, the mean percentage for each type of play for each round was compared for two-year-olds and for three-year-olds (Table 10).

For two-year-olds a significant change was the second round decrease in parallel play. For three-year-olds the second round decrease in onlooker behavior was significant. The null hypothesis of no difference in frequency of play type between observation rounds is thus rejected at the .05 level.

Family Variables and Play Patterns

The sixth hypothesis stated that there is no significant relationship between individual percentages of social participation and family size, extended family, or participation in other groups. In order to explore possible relationships, Spearman Correlations between the family and group factors and the observed play behavior were computed.

The only relationship found for two-year-olds was a positive one between the number of groups in which a child participated and the tendency to engage the teacher in associative play. Engaging the teacher in play, however, occurred with seven of the sixteen two-year-olds and with

Table 10
Play Variations by Observation Round

	Two-Year-Olds		Three-Year-Olds	
	Round 1	Round 2	Round 1	Round 2
Unoccupied	6.53	6.46	2.95	1.85
Onlooker	21.14	15.31	19.48*	9.38*
Solitary	24.14	37.48	31.25	32.72
Parallel	39.12*	27.11*	23.25	28.85
Associative	9.05	12.32	19.74	20.70
Cooperative	0.00	1.29	3.29	6.47

*Significant at the .05 level.

only one of the three-year-olds in this sample. Thirteen of the sixteen two-year-olds participated in one or two groups in addition to the class observed. The relationship observed between the number of groups and the engagement of the teacher in play, then, may reflect a characteristic of the play of two-year-olds in general and of this sample in particular rather than a cause and effect relationship.

For three-year-olds a relationship was found between the number of siblings and two types of social participation. Children with more siblings engaged in significantly more solitary play than those with few siblings. At the same time, children with more siblings tended not to engage in as much parallel play. However, a negative relationship between all parallel and solitary play was found for three-year-olds which suggests that the correlation is not a simple one between siblings and the type of play. No other relationships between the family and group factors and types of social participation were found.

The null hypothesis stated there is no significant relationship between individual percentages of social participation and family size, extended family, or participation in other groups. Each of these variables was explored in relationship to six types of play. Overall analyses failed to reject the null hypothesis.

Discussion

Limitations

The sample for this study was identified by classes including children of the desired age rather than by individual random selection. The classes available to the researcher consisted of middle class children with a traditional nuclear Anglo-Saxon family. All four classes were in church-sponsored mothers'-day-out or nursery school programs. The assessment of social participation was limited to Parten (1932) categories. Training eleven observers required each to successfully identify all categories at least twice. The utilization of the video tape facilitated active discussion of the stimuli. Although the process seemed effective, and the researchers had confidence in the reliability of their observation skills, interrater reliability was not computed. It is recommended that other studies include this configuration. The findings of this study can not be generalized to other program types.

Contrasts to Parten

This study partially replicated the study of social participation done by Mildred Parten in 1926-27. Both differences and similarities were found between these

samples observed more than fifty years apart.

Age Group Comparisons

The sample of two-year-olds in this 1982 study exhibited significantly more of the three types of play considered by Parten (1932) to be less social than did the two-year-olds in Parten's (1932) sample. The children in this study also exhibited significantly less of the more social types of play than the Parten children. A close examination of the age of Parten's (1932) sample revealed a possible explanation of these differences. Parten's (1932) preliminary study, in which the categories of social participation were established, began in October of 1926. The observations upon which she based her findings were done in the spring and summer of 1927. The two-year-olds in her sample were 24 to 35 months old in October of 1926. Therefore, they would have been 29 to 40 months old by March. The two-year-olds in the present study were 24 to 30 months old when the observations began in March 1982. Parten's (1932) sample of two-year-olds would appear to be closer in age when the observations were gathered to the sample of the three-year-olds in this 1982 study.

In this 1982 study three-year-olds were 36 to 42 months

old when the observations began. This difference of a few months in the age of the children could partially explain the seeming decline in social play in two and three-year-olds since Parten's 1932 study. When the mean percentages for each type of social participation of three-year-olds in the 1982 study were compared to those of Parten's (1932) two-year-olds using the one sample t test, only the percentages of solitary play were significantly different (Table 11).

Hierarchy of Play Types

Parten (1932) noted that the younger children in her sample engaged in more unoccupied, onlooker, and solitary play than did the older children. Parallel play was the most frequent type of play for two-year-olds and occurred more frequently among two-year-olds than any other age group (Parten, 1932). Parten (1932) further noted that associative and cooperative play were most frequently seen among the older children in her sample of one to four-year-olds. She linked the increase in the more social types of play to the increase in language skills.

Multi-age Class

Another factor in the Parten (1932) study could influence

Table 11
Comparison of Relative Frequencies of
Types of Social Participation by Marshall's
Three-Year-Olds and Parten's Two-Year-Olds

Type of Social Participation	Marshall's Three-Year-Olds N=17	Parten's Two- Year-Olds N=14	One Sample <u>t</u>
Unoccupied	2.40	2.10	.43
Onlooker	14.40	9.19	1.88
Solitary	32.00	17.65	6.13*
Parallel	26.10	30.20	1.32
Associative	20.2	17.00	1.28
Cooperative	4.90	6.97	1.66

* Significant t score at .05 level.

the type of social participation observed. Her sample was evidently made up of a multi-age class or classes. If older children were engaging in more social types of play, were the younger children involved as a result of the model of the older children? In the present study, the classes all had narrow age ranges so any possible effect of modeling older children could not cloud the findings.

Contrasts to Etaugh

Etaugh, Collins, and Staulcup (1979) also studied a group of two-year-olds in a partial replication of Parten's (1932) study. In the Etaugh et al (1979) sample, however, the mean age of the children was 23.7 months at the beginning of the study. The youth of their sample makes the validity of comparisons to Parten's (1932) two-year-olds questionable. The ten boys in their sample engaged in significantly more associative play than did the three girls. In this 1982 study, however, in which the sample of two-year-olds was composed of seven girls and nine boys, girls engaged in more associative play than did the boys, although not at a significant level. Etaugh et al (1979) do not mention cooperative play for their sample. Perhaps they did not observe any. In the

present study only the girls in the sample of two-year-olds engaged in cooperative play.

Solitary Play

Rubin, Maioni, and Hornung (1976) see one function of solitary play as a positive individual experience rather than an immature form of play. They see it occurring in more mature children who seem to desire a break in social play. In the present study, observers noted that solitary and onlooker play seemed to occur alternately or simultaneously. Children would be observed playing alone, but would stop their play momentarily to watch other children or groups of children.

This interest by the children in their peers would seem to contradict the rationale of Feine (1973) that two-year-olds are predominately oriented toward solitary play and adults. The occurrence in this sample of the two-year-olds engaging the teacher in associative play supports Feine's (1973) idea that two-year-olds are more interested in relating to the teacher than are older children. The findings of this study indicate that while two-year-olds do sometimes engage the teacher in associative play, they are also interested in relating to their peers.

In one of the three-year-old classes, the design of activities appeared to contribute to the occurrence of solitary play. For instance, the teacher would provide an art activity for one child at a time. When the child doing the art activity was observed, his or her behavior was coded as parallel play. The teacher who arranged art as a solo activity would invite each child to participate in that activity. This invitation not infrequently interrupted associative or cooperative play. This teacher did not discourage associative or cooperative play in other ways, but her way of managing art for young three-year-olds encouraged solitary play.

Some home factors may also encourage solitary play. The children in this research study come from families with fewer siblings than those in Parten's (1932) sample. Their homes tend to be spacious enough for each child to have his or her own room. Community standards encourage neat, well-decorated homes in which children are taught to play in their bedrooms from the earliest possible age.

Many children today are encouraged to engage in such play activities as puzzles, manipulatives, and paper and pencil activities, all of which could be considered helpful to cognitive development. These activities are

largely individual activities rather than cooperative ones. Associative and cooperative play activities may not be seen as helpful to learning and therefore are not encouraged.

Summary

Both two-year-olds and three-year-olds engaged in solitary and parallel play more than half the time. The three-year-olds engaged in significantly more associative and cooperative play than did the two-year-olds.

Play behavior differed significantly by sex in both the two and the three-year-old groups. Three-year-old boys engaged in significantly more parallel play than did three-year-old girls. Both two-year-old girls and three-year-old girls spent significantly more time in cooperative play than did their male counterparts.

The play patterns of this sample were contrasted to those in the classic study of Parten (1932). The two and three-year-olds in Parten's (1932) sample engaged in higher percentages of the more social types of play than the children in the present study.

Two-year-olds in this study showed no pattern of choosing one sex or the other as a play partner. However, the three-year-olds in this sample tended to choose

same-sex partners for associative play. Three-year-old girls tended to choose girls for cooperative play, but boys showed no significant sex preference in cooperative play.

The data were examined for possible change in play types as a function of observation rounds. Although the direction of change was toward increase in more social forms, only the second round decrease in parallel play for two-year-olds and a second round decrease in onlooker behavior for three-year-olds were statistically significant.

Family and group participation factors were compared to the types of play engaged in by the children. No clear relationship between family and group factors and the six types of social participation was found.

Chapter V

Summary, Conclusions and Implications

Summary

This study of social participation of two-year-old children involved comparisons to three-year-old cohorts and to the sample in the Parten (1932) study. Six hypotheses were established to explore (1) age differences (2) play patterns by sex (3) comparisons to Parten (1932) (4) choice of playmate by sex (5) differences by rounds of observation and (6) possible family or group participation factors. These hypotheses were tested using an alpha level of .05. The statistical decisions are summarized in Table 12.

Age. Both two and three-year-olds engaged in solitary and parallel play more than half the time. The three-year-olds engaged in significantly more associative and cooperative play than did the two-year-olds.

Sex. Both the two-year-old girls and the three-year-old girls engaged in significantly more cooperative play than their male counterparts. The three-year-old boys engaged in significantly more parallel play than the three-year-old girls.

Parten. The two-year-olds in the present sample

Table 12
Summary of Statistical Decisions

Null Hypothesis	Statistic Used to Analyze	Result
No difference in play by age	Mann-Whitney U	Reject hypothesis
No difference in in play by sex	Mann-Whitney U	Reject hypothesis
No difference in play compared to Parten	One- Sample $\bar{t}$	Reject hypothesis
No difference in sex of playmate	Mann-Whitney U	Reject for three-year-olds Fail to reject for two-year-olds
No difference in play by observation round	Mann-Whitney U	Reject hypothesis
No relationship between play and family and group factors	Spearman Correlations	Fail to reject hypothesis

engaged in significantly more unoccupied, onlooker, and solitary play and significantly less associative and cooperative play than the two-year-olds in Parten's (1932) sample. The three-year-olds in the present sample engaged in significantly more onlooker and solitary and significantly less cooperative play than the three-year-olds in Parten's (1932) sample.

Sex of Playmate. The two-year-olds in this study showed no significant pattern of choosing same-sex or opposite-sex playmates in associative and cooperative play. The three-year-old boys significantly chose to play with boys in associative play while girls significantly chose female playmates in both associative and cooperative play.

Length of Playtime. The two-year-olds engaged in significantly more parallel play in the first round of observations than in the second round. The three-year-olds engaged in significantly less onlooker behavior during the second round of observations.

Outside Variables. The only relationship found between individual percentages of social participation and family and group factors was the tendency of children who were participants in several groups to engage the teacher in associative play.

Conclusions

Play Types. The comparison of social participation by groups of two and three-year-olds in this study add some knowledge of two-year-olds to the literature. They have their own profile of play behavior and do not interact exactly like three-year-olds.

Sex. Both two and three-year-old girls in this sample seemed to be engaging in more social and more mature forms of play than were the boys. Perhaps the differences found reflect girls' tendency to mature more quickly than boys.

Parten. The use of Parten's (1932) six categories of social participation fifty years after the publication of her original work demonstrates the continued validity of her categories in free play situations. It also affirms the similarity of play behavior of two samples of children fifty years apart living in times changed dramatically by technology.

The difference in scores between the two-year-olds in this study and those of Parten's (1932) sample along with the discovery of a 5 to 10 month age difference between the two groups illustrates the dramatic growth in social interaction between 24 and 36 months of age.

Sex of Playmate. The two-year-olds in the sample

did not significantly choose one sex over the other in associative and cooperative play. Perhaps the development of preferences among the three-year-olds illustrates their social development and socialization.

Types of Play and Time. The slight movement toward more social types of play in the second round of observations suggests that children's social participation benefits by having rather long, leisurely periods of free play.

Outside Variables. The relationship found between the number of groups in which the child participates and the engagement of the teacher in play probably reflects a characteristic of two-year-olds. Their relative immaturity as compared to three-year-olds may mean that the teacher plays a more important role as surrogate mother than she does for the older child.

Implications for Research

This study presents a picture of sixteen two-year-olds in group settings. The sample in this study is, like others in the literature, relatively small. Parten studied 14 two-year-olds and Etaugh, et al. (1979) studied 13. More study of two-year-olds in group settings is needed, however, to provide a valid picture of the behavior

of this age group. More study of 18- to 24-month-olds as compared to 24- to 30-month-old children would help in understanding of both age groups.

The children involved in this study were middle class and of Anglo-Saxon background. Other studies are needed of low income two-year-olds and of those from a variety of ethnic backgrounds in group settings. Studies are also needed of two-year-olds in a variety of group settings. In this study the classes met once or twice a week. Would the findings be different from a study of children in daily care? Studies over a longer period of time could also give a picture of the changing patterns of social participation as the children mature.

A factor encountered in this study is that of the rapid growth and maturing of very young children within a one year span of time. This growth makes the reporting of ages in months at the time the children are actually observed disproportionately important. Researchers need to remember this factor when designing, carrying out and reporting research relating to children under 48 months of age.

More knowledge of the play behavior of girls and of boys at this age would be helpful as well as more knowledge of children's tendency to choose same or

opposite sex partners. To what extent is this acculturation and what are the consequences?

Implications for the Classroom

Relatively little research or curriculum material is available concerning two-year-olds. Teachers of two-year-olds in group settings need more information on group behaviors and appropriate activities. The present study has shown that while two-year-olds engage in a variety of play behaviors, they most frequently engage in solitary and parallel play.

In the classroom, then, two-year-olds need space and materials to play both alone and beside other children. Since their growth is toward associative and cooperative play, as seen by the significant increase in these two types of play by the three-year-olds in this study, teachers and caregivers should be prepared to encourage or allow time for the development of these two types of play. An example of encouragement of associative play was seen in this study when a teacher allowed two boys who had been engaging in associative play to paint a picture together at the easel, thus encouraging them to continue their social interaction.

The findings in this study indicate somewhat increased

social interaction in the second round of observations. This suggests that classroom schedules should allow sufficient time for the development of the more social types of play.

Significant differences were seen in the relative frequency of types of social participation in this study between two-year-olds and three-year-olds and between this sample and Parten's (1932) sample. These differences remind those who work with two- and three-year-olds that small differences of age among children in a particular group can result in great differences in their play behavior.

Appendix A

Letter to Parents of children enrolled by the
Children's Day Out Program in Plano, Texas

March 1982

Dear Parents,

I am a master's level graduate student in child development at Texas Woman's University and a former teacher at the Children's Center. My thesis will be a study of the play behavior two-year-olds in group settings. Kay Gregory has given permission to me and my volunteers to observe your child's class as they play at Children's Day Out. These observations will be done during March and April and will not disturb the usual routine of the children. We will not in any way evaluate the behavior of the children. The observations are being done simply to gather information about the usual behavior of the children in a group setting. Once the observations are complete, the children's names will not be used as the data are analyzed.

There are two questions I would like to ask about your child's experience in playing with others. They are found below along with a space to indicate your permission for your child to be observed.

1. Does your child participate on a regular basis in any other group such as Sunday School, play group, etc.? ☐ yes ☐ no.
Type of group _____.

2. Does your child have grandparents or other extended family member that he/she spends time with regularly? ☐ yes ☐ no.

I give my permission for my child _____
to be observed during his/her Children's Day Out class.

Signed _____

Thank you. Your child's participation in this study will enable caregivers to know more about the play of two and three-year-old children.

Sincerely,

Karan Marshall

Appendix B

Letter to Parents of Children enrolled at the Day School
of First United Methodist Church, Richardson, Texas

March 1982

Dear Parents,

I am on the staff at First Methodist, Richardson in younger children's ministry. I am also a master's level graduate student in child development at Texas Woman's University. My thesis will be a study of the play behavior two-year-olds in group settings. Janet Thompson has given permission to me and my volunteers to observe your child's class as they play at Children's Day Out. These observations will be done during March and April and will not disturb the usual routine of the children. We will not in any way evaluate the behavior of the children. The observations are being done simply to gather information about the usual behavior of the children in a group setting. Once the observations are complete, the children's names will not be used as the data are analyzed.

There are two questions I would like to ask about your child's experience in playing with others. They are found below along with a space to indicate your permission for your child to be observed.

1. Does your child participate on a regular basis in any other group such as Sunday School, play group, etc.? ☐ yes ☐ no.
Type of group _____.

2. Does your child have grandparents or other extended family member that he/she spends time with regularly? ☐ yes ☐ no.

I give my permission for my child _____
to be observed during his/her Children's Day Out class.

Signed _____

Thank you. Your child's participation in this study will enable caregivers to know more about the play of two and three-year-old children.

Sincerely,

Karan Marshall

Appendix C

Training and Experience of Observers

Team 1

Observer 1--Master's degree in special education, experience teaching in an early childhood program and in Sunday school.

Observer 2--Elementary education degree with kindergarten endorsement, experience teaching kindergarten and Sunday school.

Observer 3--Work toward early childhood degree, experience in mothers'-day-out and Sunday school programs.

Team 2

Observer 4--Experience working with young children in Sunday school.

Observer 5--Master's degree in psychology, experience teaching young children in preschool and Sunday school.

Team 3

Observer 6--Elementary education degree, United Methodist certification as a laboratory school leader for teachers of young children, experience teaching three-year-olds in Sunday school.

Observer 7--Experience as mothers'-day-out worker.

Observer 8--Degree in social work, work toward an early childhood degree, experience as a mothers'-day-out worker and Sunday school teacher.

Team 4

Observer 9--Degree in social work. Experience teaching Sunday school, and as a mothers'-day-out worker.

Observer 10--Experience in cooperative nursery school
and teaching Sunday school.

Observer 11--Elementary education degree and experience
teaching children.

Appendix D

Social Participation by Two-Year-Olds in Groups

Coding Sheet

Date: _____

Weather: ☐ Stormy, ☐ Clear, ☐ Mixed

Class: _____

Observer: _____

Names of Children	U	O	S	P	A	C	Sex of playmate		
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T
							M	F	T

Observation Schedule

1982	MARCH						1982
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
	1	2	3	4	5	6	
7	8	9 R 3's Team 1 Obsv. 1 Obsv. 2 Reschr.	10 CPW 2's Team 2 Obsv. 4 Obsv. 5 Reschr. CP 3's Team 3 Obsv. 6 Obsv. 7 Obsv. 8	11 CPT 2's Team 4 Obsv. 9 Reschr. R 3's Team 1 Obsv. 1 Obsv. 2	12 CP 3's Team 3 Obsv. 6 Obsv. 7 Obsv. 8	13	
14	15	16 R 3's Team 1 Obsv. 1 Obsv. 2	17 Spring Break in Plano	18 R 3's Team 1 Obsv. 1 Obsv. 2	19	20	
21	22	23	24 CPW 2's Team 2 Obsv. 4 Obsv. 5 Reschr. CP 3's Team 3 Obsv. 6 Obsv. 7 Obsv. 8	25 CPT 2's Team 4 Obsv. 9 Obsv. 11 Reschr.	26 CP 3's Team 3 Obsv. 7 Obsv. 8 Reschr.	27	
S P R I N G B R E A K I N R I C H A R D S O N							
28	29	30	31 CPW 2's Team 2 Obsv. 4 Obsv. 5 Reschr. CP 3's Team 3 Obsv. 6 Obsv. 7 Obsv. 8				

1982	APRIL						1982
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
				1 R 3's Team 1 Obsv. 2 Obsv. 3 CPT 2's Team 4 Obsv. 9 Obsv. 10 Reschr.	2	3	
4	5	6	7 CPW 2's Team 2 Obsv. 4 Obsv. 5 Reschr.	8 CPT 2's Team 4 Obsv. 9 Obsv. 11 Reschr.	9	10	
11	12	13	14 CPW 2's Team 2 Obsv. 4 Obsv. 5 Reschr.	15 CPT 2's Team 4 Obsv. 10 Reschr.	16	17	
18	19	20	21	22	23	24	
25	26	27	28	29	30		

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